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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,132	07/30/2001	William Joseph Piazza	RPS920000117US1	1394

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DILLON & YUDELL LLP
SUITE 2110
8911 NORTH CAPITOL OF TEXAS HIGHWAY
AUSTIN, TX 78759

EXAMINER	
NAHAR, QAMRUN	

ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,132	PIAZZA, WILLIAM JOSEPH	
	Examiner	Art Unit	
	Qamrun Nahar	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,19-35 and 37-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,19-35 and 37-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 04/04/2006.

2. The rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention to claims 12-18 is moot in view of applicant's amendment.

3. The rejection under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter to claims 12-18 is moot in view of applicant's amendment.

4. The rejection under 35 U.S.C. 102(b) as being anticipated by Kathail (U.S. 5,802,365) to claims 12-14, 17-19, 28-29 and 32-34 is withdrawn in view of applicant's amendment.

5. The rejection under 35 U.S.C. 103(a) as being unpatentable over Kathail (U.S. 5,802,365) in view of Applicant Admitted Prior Art (hereinafter "AAPA") to claims 15-16 and 30-31 is withdrawn in view of applicant's amendment.

6. Claims 12-18 and 36 have been canceled.

7. Claims 1, 20, 28, 35 and 44 have been amended.

8. Claims 53-54 have been added.

9. Claims 1-11, 19-35 and 37-54 are pending.

10. Claims 1-11, 19-29, 32-35 and 37-54 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Furtney (U.S. 5,579,509) in view of Kathail (U.S. 5,802,365).

11. Claims 30-31 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Furtney (U.S. 5,579,509) in view of Kathail (U.S. 5,802,365), and further in view of Applicant Admitted Prior Art (hereinafter "AAPA").

Response to Amendment

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-11, 19-29, 32-35 and 37-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furtney (U.S. 5,579,509) in view of Kathail (U.S. 5,802,365).

Per Claim 1:

Furtney teaches a method for identifying compatibility between two software modules (column 2, lines 32-46), comprising: analyzing a control block of each of said software modules, wherein each of said control blocks includes a software module version code and a compatibility table of a software module associated with said control block (column 3, lines 5-22); determining if said software module version codes of said software modules are the same; and in response to determining that said software module version codes are different, considering said two software modules to be incompatible unless a compatibility table entry indicates otherwise (column 3, lines 16-29 and lines 52-61; and column 4, lines 46-67; if said software module version codes are different, then said two software modules are incompatible unless the actual level of the module being verified is equal to or greater than the minimum level in the compatibility record, which is indicated by the compatibility table entry.). Furtney does not explicitly teach firmware images or

a firmware family code. However, Kathail teaches firmware images (column 2, lines 37-39), and a firmware family code (column 2, lines 44-50).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the method disclosed by Furtney to include firmware images and a firmware family code using the teaching of Kathail. The modification would be obvious because one of ordinary skill in the art would be motivated to provide an enhanced method and apparatus for verifying compatibility of a plurality of interacting system components (Furtney, column 2, lines 1-12).

Per Claim 2:

The rejection of claim 1 is incorporated, and Kathail further teaches further comprising reporting said firmware images are not compatible if said family codes of said firmware images are not the same and said evaluation of said compatibility tables concludes that said firmware images are not compatible (column 2, lines 60-65).

Per Claim 3:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein said compatibility table includes at least one table entry, wherein said table entry is associated with a different firmware image (column 7, lines 22-34).

Per Claim 4:

The rejection of claim 3 is incorporated, and Kathail further teaches wherein said table entry includes a family code and a stepping level of said different firmware image (column 18, lines 27-34).

Per Claim 5:

The rejection of claim 4 is incorporated, and Kathail further teaches wherein said table entry further includes a relationship code that identifies whether a firmware image associated with said compatibility table can be utilized to replace a firmware belonging to a firmware family identified in said compatibility table (column 2, lines 50-60).

Per Claim 6:

The rejection of claim 5 is incorporated, and Kathail further teaches wherein said relationship code includes a family relationship code and a stepping level relationship code (column 18, lines 27-34).

Per Claim 7:

The rejection of claim 6 is incorporated, and Kathail further teaches wherein said family relationship code identifies which firmware family code is compatible with said firmware image associated with said compatibility table (column 18, lines 27-34).

Per Claim 8:

The rejection of claim 6 is incorporated, and Kathail further teaches wherein said stepping level relationship code identifies which stepping levels can replace or be replaced with said firmware image associated with said compatibility table (column 18, lines 27-34).

Per Claim 9:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein each of said control block further includes a stepping level of an associated firmware image (column 18, lines 27-34).

Per Claim 10:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein each of said control blocks is resident in an associated firmware image (column 7, lines 66-67 to column 8, lines 1-10).

Per Claim 11:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein each of said control blocks is not resident in an associated firmware image and accessed utilizing a software application interface (API) (column 18, lines 21-26).

Per Claim 19:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein said two firmware images include an original firmware image and a replacement firmware image, and

wherein said firmware images are directly deemed compatible if said replacement firmware image can replace said original firmware image without causing an error when said replacement firmware is executed (column 42, lines 53-64).

Per Claims 20-27:

These are computer-readable medium versions of the claimed method discussed above (claims 1-5 and 7-9, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per Claims 28-29 & 32-34:

These are data processing system versions of the claimed computer-readable medium discussed above (claims 1, 4, 5, 7 and 19, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including "a processor; a non-volatile memory, coupled to said processor; a firmware image resident in said non-volatile memory" on lines 2-4 of claim 28 (Kathail, column 2, lines 37-60 and column 18, lines 16-34) and "wherein each said firmware family code uniquely identifies a product family of a firmware image" on lines 7-8 of claim 28 (Kathail, column 18, lines 16-34). Thus, accordingly, these claims are also obvious.

Per Claim 35:

This is another version of the claimed method discussed above (claims 1, 8 and 9), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth

above, including "wherein each said firmware family code uniquely identifies a product family of a firmware image" (Kathail, column 18, lines 16-34) and "in response to determining that said installed firmware does not have a firmware family control block that includes a firmware family code, firmware stepping level and compatibility table for said installed firmware, causing a flash utility to refuse to install said candidate firmware" (Kathail, column 24, lines 39-42). Thus, accordingly, this claim is also obvious.

Per Claim 37:

The rejection of claim 35 is incorporated, and Kathail further teaches further comprising overwriting said installed firmware with said candidate firmware in response to said determination that said installed and candidate firmwares are compatible (column 2, lines 60-65).

Per Claim 38:

The rejection of claim 35 is incorporated, and Kathail further teaches further comprising reporting said installed firmware with said candidate firmware are incompatible in response to said determination that said installed and candidate firmwares are not compatible (column 24, lines 39-42).

Per Claims 39-43:

These are another versions of the claimed method discussed above (claims 3-5 and 7-8, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per Claims 44-52:

These are computer-readable medium versions of the claimed method discussed above (claims 35-43, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including "wherein each said firmware family code uniquely identifies a product family of a firmware image, and wherein the product family is defined as a set of products that utilizes a same firmware that allows unrestricted changes from one revision level of said firmware image to another revision level of said firmware image" on lines 9-13 of claim 44 (Kathail, column 18, lines 16-34). Thus, accordingly, these claims are also obvious.

Per Claim 53:

The rejection of claim 35 is incorporated, and Kathail further teaches in response to determining that said candidate firmware is desired to replace said installed firmware that does not have said firmware family control block, issuing an override command from said flash utility to override said refuse to install command, wherein said candidate firmware flashes over said installed firmware despite said installed firmware lacking said firmware family control block (column 24, line 55 to column 25, line 25).

Per Claim 54:

The rejection of claim 1 is incorporated, and Kathail further teaches wherein said method for identifying compatibility between two firmware images is performed in response to an

electronic device having undergone a design upgrade that incorporates new components (column 25, lines 14-25).

14. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furtney (U.S. 5,579,509) in view of Kathail (U.S. 5,802,365), and further in view of Applicant Admitted Prior Art (hereinafter "AAPA").

Per Claim 30:

The rejection of claim 28 is incorporated, and further, Kathail does not explicitly teach wherein said non-volatile memory device is a programmable read only memory (PROM). AAPA teaches wherein said non-volatile memory device is a programmable read only memory (PROM) (see instant specification, pg. 2, lines 8-13).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the data processing system disclosed by Kathail to include wherein said non-volatile memory device is a programmable read only memory (PROM) using the teaching of AAPA. The modification would be obvious because one of ordinary skill in the art would be motivated to distribute updates using PROM.

Per Claim 31:

The rejection of claim 28 is incorporated, and further, Kathail does not explicitly teach wherein said non-volatile memory device is an electrically erasable programmable read only memory (EEPROM). AAPA teaches wherein said non-volatile memory device is an electrically

erasable programmable read only memory (EEPROM) (see instant specification, pg. 2, lines 13-17).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the data processing system disclosed by Kathail to include wherein said non-volatile memory device is an electrically erasable programmable read only memory (EEPROM) using the teaching of AAPA. The modification would be obvious because one of ordinary skill in the art would be motivated to reuse the same hardware for updates.

Response to Arguments

15. Applicant's arguments filed on 04/04/2006 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

a) The combination of Furtney and Kathail fails to teach "in response to determining that said firmware family codes are different, considering said two firmware images to be incompatible unless a compatibility table entry indicates otherwise" as recited in claim 1.

Examiner's response:

a) Examiner strongly disagrees with applicant's assertion that the combination of Furtney and Kathail fails to disclose the claimed limitations recited in claim 1. The combination of Furtney and Kathail clearly shows each and every limitation in claim 1.

The combination of Furtney and Kathail teaches that in response to determining that said software module version codes are different, considering said two software modules to be

incompatible unless a compatibility table entry indicates otherwise (column 3, lines 16-29 and lines 52-61; and column 4, lines 46-67; if said software module version codes are different, then said two software modules are incompatible unless the actual level of the module being verified is equal to or greater than the minimum level in the compatibility record, which is indicated by the compatibility table entry.). Furtney does not explicitly teach firmware images or a firmware family code. However, Kathail teaches firmware images (column 2, lines 37-39), and a firmware family code (column 2, lines 44-50).

In addition, see the rejection above in paragraph 13 for rejection to claim 1.

In the remarks, the applicant argues that:

b) The combination of Furtney and Kathail fails to teach "in response to determining that said installed firmware does not have a firmware family control block that includes a firmware family code, firmware stepping level and compatibility table for said installed firmware, causing a flash utility to refuse to install said candidate firmware" as recited in claim 35.

Examiner's response:

b) Examiner strongly disagrees with applicant's assertion that the combination of Furtney and Kathail fails to disclose the claimed limitations recited in claim 35. The combination of Furtney and Kathail clearly shows each and every limitation in claim 35.

The combination of Furtney and Kathail teaches that in response to determining that said installed firmware does not have a firmware family control block that includes a firmware family

code, firmware stepping level and compatibility table for said installed firmware, causing a flash utility to refuse to install said candidate firmware (see Kathail, column 24, lines 39-42).

In addition, see the rejection above in paragraph 13 for rejection to claim 35.

In the remarks, the applicant argues that:

c) The combination of Furtney and Kathail fails to teach "in response to determining that said candidate firmware is desired to replace said installed firmware that does not have said firmware family control block, issuing an override command from said flash utility to override said refuse to install command, wherein said candidate firmware flashes over said installed firmware despite said installed firmware lacking said firmware family control block" as recited in claim 53.

Examiner's response:

c) Examiner strongly disagrees with applicant's assertion that the combination of Furtney and Kathail fails to disclose the claimed limitations recited in claim 53. The combination of Furtney and Kathail clearly shows each and every limitation in claim 53.

Kathail further teaches in response to determining that said candidate firmware is desired to replace said installed firmware that does not have said firmware family control block, issuing an override command from said flash utility to override said refuse to install command, wherein said candidate firmware flashes over said installed firmware despite said installed firmware lacking said firmware family control block (column 24, line 55 to column 25, line 25).

In addition, see the rejection above in paragraph 13 for rejection to claim 53.

In the remarks, the applicant argues that:

d) The combination of Furtney and Kathail fails to teach "wherein said method for identifying compatibility between two firmware images is performed in response to an electronic device having undergone a design upgrade that incorporates new components" as recited in claim 54.

Examiner's response:

d) Examiner strongly disagrees with applicant's assertion that the combination of Furtney and Kathail fails to disclose the claimed limitations recited in claim 54. The combination of Furtney and Kathail clearly shows each and every limitation in claim 54.

Kathail further teaches wherein said method for identifying compatibility between two firmware images is performed in response to an electronic device having undergone a design upgrade that incorporates new components (column 25, lines 14-25).

In addition, see the rejection above in paragraph 13 for rejection to claim 54.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QN
June 23, 2006

WEI ZHEN
SUPERVISORY PATENT EXAMINER